

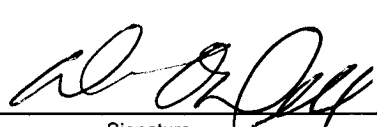
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PTO/SB/33 (07-05)

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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
		2002-0893 / 24061.22	
I hereby certify that this correspondence is being deposited with the United States and Trademark Office via EFS-Web on		Application Number	Filed
on <u>December 4, 2007</u>		10/668,702	September 23, 2003
Signature <u>Bonnie Boyle</u>		First Named Inventor	
Typed or printed name <u>Bonnie Boyle</u>		Lin et al.	
		Art Unit	Examiner
		2811	Gebremariam, S.
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.			
This request is being filed with a notice of appeal.			
The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the			
<input type="checkbox"/> applicant/inventor.		Signature	
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)		David M. O'Dell	
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>42,044</u>		Typed or printed name	
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		972-739-8635	
		Telephone number	
		December 4, 2007	
		Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/> *Total of _____ forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:	§	Attorney Docket No. 24061.22
Lin et al.	§	(TSMC 2002-0893)
	§	
Serial No.: 10/668,702	§	Customer No. 42717
	§	
Filed: September 23, 2003	§	Group Art Unit: 2811
	§	
For: METHOD FOR IMPROVING	§	Examiner: Gebremariam, S
TIME DEPENDENT DIELECTRIC	§	
BREAKDOWN LIFETIMES	§	

**REASONS IN SUPPORT OF**  
**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Please consider the following reasons in support of the concurrently filed Pre-Appeal Brief Request for Review.

**Reasons**

I. Applicants submit that there is clear error with respect to the Examiner's rejection of independent claims 12 and 21 including the rejection of dependent claims 13-17 and 24 under 35 U.S.C. § 112. More specifically, as detailed on pages 2-3 of Applicants' Response filed October 15, 2007 to the Final Office Action dated Sept 11, 2007, as well as pages 8-9 of Applicants' Response filed June 14, 2007 to the Office Action dated April 6, 2007, the rejection under §112 of claims 12-17, 21, and 24 as being indefinite and not supported by the written description, respectively, is improper.

It is unclear to the Applicants what §112 rejection the Examiner is maintaining only that "the 35 USC 112 is still warranted." Advisory Action dated Nov 5, 2007. As such, the Applicants are forced herein to address a plurality of 112 rejections, both first and second paragraph.

A. The Examiner is not providing the broadest reasonable interpretation of the claimed “first metal layer”

In the Final Office Action dated September 11, 2007, the Examiner rejected claims 12-17, 21, and 24 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Final Office Action, page 2. In making the rejection, the Examiner appears to be stating that the claimed “first metal” layer must be the layer first formed on the semiconductor substrate. However, the applicant intended for the term “first” to have its broadest reasonable interpretation in light of the specification, that is, that the term “first” (and the term “second”) are used merely to differentiate two claimed layers. Response dated October 15, “First” and “Second” provide no limitation other than to distinguish these layers. The Federal Circuit has ruled that these terms should be read as nothing more than designators in a similar patent case. See, e.g., *3M Innovative Properties Company v. Avery Dennison Corp.* 350 F.3d 1365 (Fed. Cir. 2003).

B. Applicants’ Specification provides examples of the claimed elements including the claimed “interfaces”

In the Advisory Action dated Nov 15, 2007, the Examiner states “Referring to the insert provided by the applicant on page 3 of the remarks section, one can identify a first interface between layers 300 and 216, second interface between layers 300 and 216 and a third interface between layers 300 and 214. However there is no interface between the metal layer 214/216 and the glue layer 300. Therefore the 35 U.S.C. 112 is still warranted.” Advisory Action, Continuation of 11, lns. 3-5. The basis of rejection being asserted by these comments is unclear to the Applicants as the Examiner’s assertions appear to say at least three different interfaces exist between a metal layer and a glue layer. As is clear from the Examiner’s statements and the Applicants’ disclosure, an interface is provided between a glue layer (300) and a metal layer (216 and/or 214). Claims 12 and 21 require an interface between a metal and a glue layer. The Examiner provides no further comment as to the rationale for maintaining a 112 rejection. In contradiction to his rejection, the Examiner actually seems to point out possible for support in the

specification for a claimed element, i.e., an interface between a metal layer and a glue layer.

In the event that the Examiner is providing a §112, first paragraph rejection that the claims are not supported by the written description in a manner in which to convey to one skilled in the art that the inventor has possession of the claimed invention, this rejection is also in clear error.

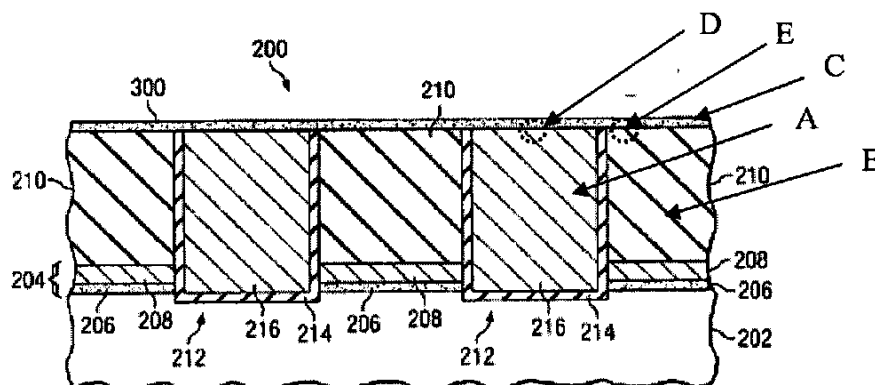
Claim 12, requires in part:

...depositing a first metal layer [A] adjacent the dielectric layer [B];  
depositing a glue layer [C] on the dielectric layer and the first metal  
layer such that an interface [D] is formed directly between the first  
metal layer and a lower surface of the glue layer and an interface [E]  
is formed directly between the dielectric layer and a lower surface of  
the glue layer...(Emphasis and annotations added.)

Claim 21, requires in part:

...forming a first metal layer adjacent the dielectric layer; forming a  
glue layer on the first metal layer such that an interface is formed  
directly between metal of the first metal layer and a lower surface of  
the glue layer and an interface is formed directly between the  
dielectric layer and a lower surface of the glue layer...(Emphasis  
added.)

Figure 3 of the current disclosure is reproduced below, with markings added, and illustrates an embodiment of the limitations of the claims at issue.



The Applicants' Figure 3 and the accompanying description provided in the specification clearly provide support for the elements of claims 12 and 21. Applicants' specification [0025], [0026], and [0028]. For example, a first metal layer 216 (marked "A" above) is adjacent a dielectric layer 210 (marked "B"); a glue layer 300 (marked "C") is on the dielectric layer 210; an interface (marked "D") formed directly between the first metal layer 216, and a lower surface of the glue layer 300; and an interface (marked "E") is formed directly between the dielectric layer 210 and a lower surface of the glue layer 300. In other examples, the first metal layer may be considered layer 214, which is adjacent dielectric layer 210, and an interface is formed between the metal layer 214 and a lower surface of the glue layer 300.

Thus, Applicants submit that any 112 rejection(s) are in clear error. Claims 13-17 and 24 depend from and further limit claim 1 and claim 21 respectively and therefore suffer from the same error as claim 1.

**Conclusion**

It is respectfully submitted that at least claims 12-17, 21, and 24 in the application are in condition for allowance.

Respectfully submitted,

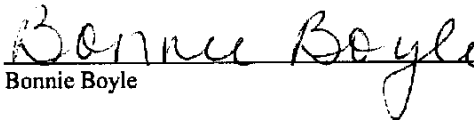


David O'Dell  
Registration No. 42,044

Dated: December 4, 2007  
HAYNES AND BOONE, LLP  
901 Main Street, Suite 3100  
Dallas, Texas 75202-3789  
Telephone: 972 739-8643  
Facsimile: 214 200-0853  
File: 24061.22

**Certificate of Service**

I hereby certify that this correspondence is being filed with the U.S. Patent and Trademark Office via EFS-Web on December 4, 2007.

  
Bonnie Boyle